In the claims:

1. (Currently amended) An apparatus for encoding data in accordance with a fire code G (x) = P (x) ~~$(1 + x^c)$~~ $(1+x^c)$, where P (x) is an irreducible polynomial of the degree m, characterized in that the value for C can be freely set within predetermined limits and changed so that a code with variable redundancy can be obtained, ~~and the value for C or the values b and d for the error correction and detection properties of the incorporated redundancy are adaptable to the respective quality of the transmission channel, and~~ the apparatus is formed so that it can implement a plurality of different fire codes, ~~and~~ the different fire codes are selected for coding of input data in dependence on a control value, to produce the code with variable redundancy, and the variable redundancy produced by the wire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel.

2. (Currently amended) The apparatus according to claim 1, characterized in that the upper limit for C is predetermined by a maximal value and that the encoding apparatus has storage elements ~~(3)~~ and modulo 2 adders ~~(4)~~ whose number corresponds to ~~the~~a maximal number, and that switches ~~(31, 52,...53, 54)~~ are provided, by means of which the storage

places ~~(3)~~ and modulo 2 adders ~~(4)~~ can connected together into an encoder according to the selected value C.

3. (Original claim) A decoder for decoding data in accordance with a fire code G (x) = P (x) (1 + x^c), where P (x) is an irreducible polynomial of the degree m, characterized in that the value for C can be freely set within predetermined limits.

4. (Currently amended) The decoder according to claim 3, characterized in that a disk register ~~(103)~~ is provided, wherein the length of the disk register ~~(103)~~ can be set as a function of the value for C.

5. (Currently amended) The decoder according to claim 4, characterized in that a second disk register ~~(102)~~ is provided, whose length can be set to a value B, where in all cases, B is less than ~~M~~ m and where B indicates the maximal number of correctable bit errors.

6. (Currently amended) A method for encoding data in accordance with a fire code G (x) = P (x) ~~(1 + x^c)~~ (1+x^c), where P (x) is an irreducible polynomial of the degree m, characterized ~~int hat~~ in that the value for C can be freely set within predetermined limits and changed so that a

code with variable redundancy can be obtained, ~~and the value for C or the values b and d for the error correction and detection properties of theincorporated redundancy are adaptable to the respective quality of the transmission channel,~~ , and the variable redundancy produced by the wire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel so that with only fixed values for a data rate for the transmission channel and variable data rate of a source, transmission reliability can be increased by selecting coding and corresponding polynomials in dependence on different situation.

7. (Currently amended) A method for decoding data in accordance with a fire code $G(x) = P(x)(1 + x^c)$, where P (x) is an irreducible polynomial of the degree m, characterized in that the value for C can be freely set within predetermined limits and changed so that a code with variable redundancy can be obtained, ~~and the value for C or the values b and d for the error correction and detection properties of the incorporated redundancy are adaptable to the respective quality of the transmission channel,~~ , and the variable redundancy produced by the wire code is used to dynamically adapt a data rate of a source data to an available band width of a respective data channel so that with only fixed values for a data rate for the transmission channel and variable data rate of a source, transmission

reliability can be increased by selecting codings and corresponding polynomials independence on different situation.

8. (Currently amended) The method according to claim 7, characterized in that the values b and d ~~(according to the specification~~ for the error correction and detection properties ~~o~~of the incorporated redundancy can be freely set within predetermined limits and in accordance with d=c+1-b.

Claim 9 cancelled.

10. (Currently amended) An apparatus as defined in claim 1, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the transmission value, and the values b and d are ~~adaptable~~ adapted to a bit error rate of the transmission channel.

11. (Currently amended) A method as defined in claim 6, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the

transmission value, and the values b and d are ~~adaptable~~adapted to a bit error rate of the transmission channel.

12. (Currently amended) A method as defined in claim 7, wherein values b and d for the error correction and detection properties of the incorporated redundancy are adapted to the respective quality of the transmission value, and the values b and d are ~~adaptable~~adapted to a bit error rate of the transmission channel.